

SUBJECT: USS Clairton Works- Air Toxics Evaluation DATE: 6-30-10

TO: Scott Throwe, Office of Enforcement and Compliance Assurance

FROM: James W. Hagedorn, Office of Enforcement and
Compliance Assistance (3AP20)
Air Protection Division

JWH

THRU: Christopher Pilla, Chief, Office of Air Enforcement and
Compliance Assistance (3AP20) *Christopher B Pilla*

Attached please find a copy of the Air Toxics Evaluation Form for the United States Steel facility in Clairton, Pennsylvania (Clairton Works). The Clairton plant produces metallurgical coke used in blast furnaces in the steel industry for the production of iron. Coal is emptied into slot type ovens where it is heated for about 18 hours, thereby, driving off all the volatile matter in the coal to produce coke which is basically carbon. Cokemaking is a very emissive process and coke oven emissions are listed as a separate hazardous air pollutant. The Allegheny County portion of the Pennsylvania State Implementation Plan has regulations for coke oven coal charging, oven door leakage, topside piping leakage, the coke pushing process, in addition to many other requirements. Several MACT program subparts apply to the manufacture of coke. The Allegheny County Health Department currently is involved in an agreement with United States Steel for the shutdown of the older coke ovens and the construction of new coke ovens with the latest emission control technology. There are schools in the immediate area around Clairton Works which are impacted by this plant's air emissions. EPA conducted an air emission compliance evaluation for a portion of this plant on October 27 and 28, 2009.

The attached form provides the basis for EPA-Region III's air toxics determination. If you have any questions, please contact me at (215) 814-2161.

Attachment

U.S. EPA REGION
AIR TOXICS EVALUATION FORM
FY08 - FY10
June 28, 2010

1) BASIC SOURCE INFORMATION

Facility Name: USS Clairton Works

Air Facilities System ID: 42-003-00032

Address: State Street, Clairton, Pennsylvania

National Problem Area: ☐ LDAR ☐ Surface Coating ☐ Flare ☒ Facility Associated with the Air Toxics
Around Schools Initiative

Disclaimer: The information provided in this form is for the purposes of internal Agency deliberations, and does not constitute Agency findings or determinations. EPA reserves the right to take any appropriate action under applicable authority either in accordance or at odds with the information provided. No person may rely on the information provided in this form with respect to compliance with applicable law. The recommendations and conclusions may change based on additional information or analysis.

2) **MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY SUBPART AND EXPLANATION:**

It has been determined that this facility is:

☐ Not subject to the MACT category.

X ☒ Subject to the MACT category; no further action required at this time. See Additional Comments below.

This facility is subject to the Coke Plant MACT and the Pushing, Quenching and Combustion Stack MACT. Allegheny County Health Department inspectors routinely look at this facility for compliance with all applicable regulations. Enforcement actions are taken by the County when necessary. The County has fined USS on a regular basis and has quarterly enforcement meetings with the Company on their performance. The County is a party to an agreement with USS on a long range plan for shutting down the older batteries and constructing all new batteries with the latest emission control technology. There are schools in the area impacted by this plant's emissions and it was targetted for evaluation due to the emission of coke oven gas which is a listed air toxic pollutant.

3) **FACILITY PROCESS DESCRIPTION**

Brief summary of the facility and process... This plant is the largest coke plant in North America and produces metallurgical coke for blast furnace iron-making in the steel industry. Coal is converted to coke through the destructive distillation of coal by gasifying the volatile matter in the coal in an oxygen reduced atmosphere.

4) **COMPLIANCE EVALUATION ACTIVITIES & CAA § 114 INFORMATION REQUESTS**

Inspections/Requests	Date	Outcomes/Observations
<i>Describe action: PCE, FCE, Investigation, On-site, 114 Letter... Add or delete rows as necessary</i>		<i>Briefly describe compliance evaluation observations, outcomes, determinations, etc... Reference attachments if necessary.</i>
EPA did a PCE at the plant on October 26-29, 2009 to look at the battery emission points and to evaluate regulation compliance. Allegheny County routinely inspects this plant.		This plant was in compliance with the regulations except for the pushing operation for one push on #19 battery which resulted in heavy emissions due to problems with the heating system on this oven. The Company is already required to rebuild these coke ovens.

5) **RECOMMENDATIONS FOR FUTURE ACTIONS**

As this is a large source of air toxics (coke oven emissions), continued inspections should be performed to keep the Company efforts for compliance at a high level.

6) **ADDITIONAL COMMENTS**

None.

7) **DATA ENTRY**

☐ Compliance evaluation minimum data requirements have been entered into AFS.

☐ The following special Air Toxics Regional Action Codes have been entered into AFS (check any that are applicable for this facility):

☐ FCE On-site

☐ FCE Off-site

X ☒ PCE On-site

☐ PCE Off-site

☐ Investigation Initiated

☐ Investigation Complete

☐ Non-applicability

☐ No Further Action (Response Code)

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8) PROVIDE THE NAME OF THE REGIONAL STAFF CONTACT- James Hagedorn

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